

**REMARKS**

Claims 1-44 are pending in this application. Claims 15, 32, and 41 are amended herein to correct minor typographical errors. Thus, it is believed that no new matter has been added.

**Restriction Requirement Under 35 U.S.C. § 121**

The Office has requested a restriction to one of the following inventions under 35 U.S.C. § 121: Group I (claims 1-27, 34, 39, and 42-44), drawn to endo-xylogalacturonase or endo-xylogalacturonan hydrolase (XGH) polypeptide, polynucleotides and method of use which hydrolyze xylogalacturonic acid polymer (XGA) or polygalacturonic acid (PGA); Group II (claims 28-29 and 40-42), drawn to a processed plant material, *i.e.*, fruit or vegetable juice; Group III (claim 35), drawn to a composition comprising gum tragacanth (sGT) treated with a strong acid; and Group IV (claims 36-38), drawn to a method of screening polypeptide having endo-xylogalacturonase or endo-xylogalacturonan hydrolase (XGH) activity.

As a preliminary matter, Applicants note that claims 30-33 are not included in the Groups indicated by the examiner. As claims 30-33 relate to methods of using the polypeptide of claim 1 (*i.e.*, the peptide with endo-xylogalacturonase activity), Applicants believe these claims should be included in Group I. Therefore, Applicants respectfully request that claims 30-33 be joined to the claims of Group I. Applicants further note that claim 42 is included in both Groups I and II. Because claim 42 is drawn to a method of using the polypeptide of claim 1, Applicants respectfully submit that claim 42 is properly included in the set of claims in Group I.

Applicants hereby elect Group I (claims 1-27, 34, 39, and 42-44), with traverse with respect to the restriction between Groups I and II. Applicants note that claims all involve polypeptides having endo-xylogalactouronase activity and thus, the claims do not present an undue search burden. Notably, the examiner during the PCT International Preliminary Examination considered the claims of Groups I and II to share the same technical feature. *See* Exhibit A. Thus, Applicants respectfully request that the joinder of Groups I and II for purposes of examination.

Should the Examiner uphold the restriction requirement with respect to Groups I and II and claims of Group I are subsequently found allowable, Applicants reserve the right to request rejoinder of withdrawn claims which include all the limitations of the allowable claims for examination. *See* M.P.E.P. § 821.04.

Applicants expressly reserve their right under 35 U.S.C. § 121 to file a divisional application directed to the nonelected subject matter during the pendency of this application, or an application claiming priority from this application.

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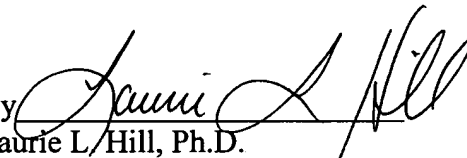
### CONCLUSION

Applicants request reconsideration of the restriction requirement and examination of the elected subject matter on the merits.

In the unlikely event that the transmittal form is separated from this document and the Patent Office determines that an extension and/or other relief is required, Applicant petitions for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees due in connection with the filing of this document to **Deposit Account No. 03-1952** referencing 251502008400. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

Dated: July 20, 2005

Respectfully submitted,

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# PATENT COOPERATION TREATY

## PCT

### INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>N.73992A SMW</b>	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. <b>PCT/EP99/00860</b>	International filing date (day/month/year) <b>09/02/1999</b>	Priority date (day/month/year) <b>10/02/1998</b>
International Patent Classification (IPC) or national classification and IPC <b>C12N15/55</b>		
Applicant <b>DSM N.V. et al.</b>		

1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.


2. This REPORT consists of a total of 5 sheets, including this cover sheet.

☐ This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).

These annexes consist of a total of sheets.

3. This report contains indications relating to the following items:

- I ☒ Basis of the report
- II ☐ Priority
- III ☒ Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- IV ☐ Lack of unity of invention
- V ☒ Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- VI ☐ Certain documents cited
- VII ☐ Certain defects in the international application
- VIII ☒ Certain observations on the international application

Date of submission of the demand  <b>07/09/1999</b>	Date of completion of this report  <b>30.05.2000</b>
Name and mailing address of the international preliminary examining authority:   <b>European Patent Office</b> <b>D-80298 Munich</b> <b>Tel. +49 89 2399 - 0 Tx: 523656 epmu d</b> <b>Fax: +49 89 2399 - 4465</b>	Authorized officer  <b>Ury. A</b>  Telephone No. <b>+49 89 2399 8411</b>



# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No. PCT/EP99/00860

## I. Basis of the report

1. This report has been drawn on the basis of (*substitute sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to the report since they do not contain amendments.*):

### Description, pages:

1-42 as originally filed

### Claims, No.:

1-38 as originally filed

### Drawings, sheets:

1/8-8/8 as originally filed

2. The amendments have resulted in the cancellation of:

- ☐ the description, pages:  
☐ the claims, Nos.:  
☐ the drawings, sheets:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)):

4. Additional observations, if necessary:

## III. Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non-obvious), or to be industrially applicable have not been examined in respect of:

- ☐ the entire international application.  
☒ claims Nos. 35-38.

because:

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- ☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (*specify*):
- ☐ the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (*specify*):
- ☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.
- ☒ no international search report has been established for the said claims Nos. 35-38.

**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

**1. Statement**

Novelty (N)	Yes:	Claims	1-27, 29-33
	No:	Claims	34
Inventive step (IS)	Yes:	Claims	1-27, 29-33
	No:	Claims	34
Industrial applicability (IA)	Yes:	Claims	1-34
	No:	Claims	

**2. Citations and explanations**

see separate sheet

**VIII. Certain observations on the international application**

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

see separate sheet

**Item V.**

- I) The present invention results from the isolation and characterization of a novel enzyme, an **endo**-xylogalacturonase. An enzyme having **exo**-xylogalacturonase activity has been identified in the prior art (see the present description page 2). However an enzyme possessing an **endo**-xylogalacturonase activity is neither disclosed nor suggested by the available prior art.  
Thus, the main subject-matter of the present application fulfils the requirement of Article 33.2 and 3 PCT.
- II) The endo-xylogalacturonase according to the application is present in several microorganisms (description page 3-4), inter alia the fungus of the genus *Aspergillus*. These microorganisms are present in animal feed or foodstuff. Thus, an animal feed or foodstuff comprising a polypeptide which possesses endo-xylogalacturonase activity (see claim 34) lacks novelty under Article 33.2 PCT.
- III) For the assessment of present claim 28 on the question of whether or not it fulfils the requirements of novelty, no unified criteria exist in the PCT. The patentability can also be dependent upon the formulation of the claim. The EPO, for example, does not recognize a product as novel merely by the fact that it is produced by means of a new process.

**Item VIII.**

- 1) The subject-matter of a great many claims do not fulfil the requirements of Article 6 PCT taken in conjunction with Rule 6.3a PCT which states that the subject-matter for which protection is sought must be defined in terms of the technical features of the invention (i.e in the present case, the sequences).  
The claims objected to are claims 1-3 and 7, 12-34 (when they refer directly or indirectly to claims 1-3).
- 2) The expressions:
  - "substantially homologous" in claim 4,

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EXAMINATION REPORT - SEPARATE SHEET**

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- "fragment (there)of" in claims 4, 8b and 8c, are vague and indefinite and as such render the scope of the claims unclear. Indeed, these expressions introduce in the scope of the claims, nucleotide or amino acid sequences which may be of very small size and therefore easily objectionable with regard to novelty and/or inventive step. Accordingly, said claims require amendments to remove these defects (Article 6 PCT). Introduction of functional limitations may overcome these objections.

- 3) The expressions "capable of hybridizing" (claims 8b, 8c) and "hybridises selectively" are not acceptable clear technical features per se, since the scope of protection defined by said features varies depending on the conditions used (Article 6 PCT).